



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,414	12/13/2005	Soren Flensted Lassen	10423.204-US	9631
25908	7590	11/08/2007	EXAMINER	
NOVOZYMES NORTH AMERICA, INC.			MOORE, WILLIAM W	
500 FIFTH AVENUE			ART UNIT	PAPER NUMBER
SUITE 1600			1656	
NEW YORK, NY 10110				
MAIL DATE		DELIVERY MODE		
11/08/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/560,414	LASSEN, SOREN FLENSTED
	Examiner William W. Moore	Art Unit 1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 December 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_\_ is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) 21-40 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

*Election/Restrictions*

Restriction is required under 35 U.S.C. §§ 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In accordance with 37 CFR 1.499, Applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claims 21-32 and 34-40, each drawn in part to a genus of modified proteases wherein a catalytic domain (i.e., the "mature part") that is at least 70% identical to the amino acid sequence set forth in SEQ ID NO:43, a catalytic domain that is encoded by each of SEQ IDs NOs:1, 2, and 31, is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification, to compositions comprising same, to polynucleotides encoding the modified proteases and vectors and recombinant host cells comprising same, as well as to recombinant method of making the encoded protease using such vectors and host cells.

Group 2, claims 21-28 and 34-40, each drawn in part to a genus of modified proteases wherein a catalytic domain (i.e., the "mature part") that is at least 70% identical to the amino acid sequence set forth in SEQ ID NO:28, a catalytic domain that is encoded by SEQ ID NO: 25, is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification, to compositions comprising same, to polynucleotides encoding the modified proteases and vectors and recombinant host cells comprising same, as well as to recombinant method of making the encoded protease using such vectors and host cells.

Group 3, claims 21-28 and 34-40, each drawn in part to a genus of modified proteases wherein a catalytic domain (i.e., the "mature part") that is at least 70% identical to the amino acid sequence set forth in SEQ ID NO:33, a catalytic domain that is encoded by SEQ ID NO:32, is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification, to compositions comprising same, to polynucleotides encoding the modified proteases and vectors and recombinant host cells comprising same, as well as to recombinant method of making the encoded protease using such vectors and host cells.

Group 4, claims 21-22 and 34-40, each drawn in part to a genus of modified proteases wherein a catalytic domain (i.e., the "mature part") that is at least 70% identical to the amino acid sequence set forth in SEQ ID NO:37, a catalytic domain that is encoded by SEQ ID NO:36, is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification, to compositions comprising same, to polynucleotides encoding the modified proteases and

vectors and recombinant host cells comprising same, as well as to recombinant method of making the encoded protease using such vectors and host cells.

Group 5, claims 21-22 and 34-40, each drawn in part to a genus of modified proteases wherein a catalytic domain (i.e., the "mature part") that is at least 70% identical to the amino acid sequence set forth in SEQ ID NO:41, a catalytic domain that is encoded by SEQ ID NO:36, is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification, to compositions comprising same, to polynucleotides encoding the modified proteases and vectors and recombinant host cells comprising same, as well as to recombinant method of making the encoded protease using such vectors and host cells.

Group 6, claims 21-22 and 34-40, each drawn in part to a genus of modified proteases wherein a catalytic domain (i.e., the "mature part") that is at least 70% identical to the amino acid sequence set forth in SEQ ID NO:45, a catalytic domain that is encoded by SEQ ID NO:44, is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification, to compositions comprising same, to polynucleotides encoding the modified proteases and vectors and recombinant host cells comprising same, as well as to recombinant method of making the encoded protease using such vectors and host cells.

Group 7, claim 33, drawn in part to a genus of transgenic plants, or parts thereof, comprising polynucleotides encoding modified proteases wherein the catalytic domain of the amino acid sequence set forth in SEQ ID NO:43 is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification.

Group 8, claim 33, drawn in part to a genus of transgenic plants, or parts thereof, comprising polynucleotides encoding modified proteases wherein the catalytic domain of the amino acid sequence set forth in SEQ ID NO:28 is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification.

Group 9, claim 33, drawn in part to a genus of transgenic plants, or parts thereof, comprising polynucleotides encoding modified proteases wherein the catalytic domain of the amino acid sequence set forth in SEQ ID NO:33 is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification.

Group 10, claim 33, drawn in part to a genus of transgenic plants, or parts thereof, comprising polynucleotides encoding modified proteases wherein the catalytic domain of the amino acid sequence set forth in SEQ ID NO:37 is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification.

Art Unit: 1656

Group 11, claim 33, drawn in part to a genus of transgenic plants, or parts thereof, comprising polynucleotides encoding modified proteases wherein the catalytic domain of the amino acid sequence set forth in SEQ ID NO:41 is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification.

Group 12, claim 33, drawn in part to a genus of transgenic plants, or parts thereof, comprising polynucleotides encoding modified proteases wherein the catalytic domain of the amino acid sequence set forth in SEQ ID NO:45 is modified by a carboxyl-terminal extension of from one to at least eight of the 15 non-polar, or uncharged, amino acids disclosed at page 13, lines 1 and 2, of the specification.

The inventions listed as Groups 1-6 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The special technical feature of each of the inventions of Groups 1-6 is the specific amino acid sequence that is the foundation of the genus of secreted proteases and the reference point for determining the members of each genus and none of the specific, founding, amino acid sequences of SEQ IDs NOs:43, 28, 33, 37, 41 and 45 are disclosed to be present within a genus established by reference to another of SEQ IDs NOs: 43, 28, 33, 37, 41 and 45. Thus the inventions of Groups 1-6 share no same or corresponding special technical feature.

The inventions listed as Groups 1-6, on the one hand, and the inventions listed as Groups 7-12, on the other hand, do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons. The special technical feature of each Groups 1-6 requires that a modified protease be a secreted protease, i.e., a protease that is no longer present within an organism, while the special technical feature of the inventions of Groups 7-12 is the presence within a plant, or plant part, of a polynucleotide and there is no requirement either for the presence of a polypeptide or for its secretion. Thus inventions of Groups 7-12 share no same or corresponding special technical feature with the inventions of Groups 1-6.

The inventions listed as Groups 7-12 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The special technical feature of each of the inventions of Groups 7-12 is the presence in a plant, or plant part, of a polynucleotide the nucleic acid sequence of which has the coding capacity to specify an amino acid sequence that is the foundation of the genus of proteases and that is a reference point for determining the members of each genus of proteases and none of the specific, founding, amino acid sequences

Art Unit: 1656

of SEQ IDs NOs:43, 28, 33, 37, 41 and 45 that must be encoded by a polynucleotide residing in a plant, or plant part, are disclosed to be present within a genus established by reference to another of SEQ IDs NOs: 43, 28, 33, 37, 41 and 45. Thus the inventions of Groups 7-12 share no same or corresponding special technical feature.

*Inventorship*

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

*Conclusion*

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William W. Moore whose telephone number is 571.272.0933 and whose FAX number is 571.273.0933. The examiner can normally be reached Monday through Friday between 9:00AM and 5:30PM EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisory Primary Examiner, Dr. Kathleen Kerr, can be reached at 571.272.0931. The official FAX number for all communications for the organization where this application or proceeding is assigned is 571.273.8350. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571.272.1600.

/Nashed/  
Nashaat T. Nashed, Ph. D.  
Primary Examiner, Art Unit 1656

  
William W. Moore  
6 November 2007